# ARC 6353B

## ENVIRONMENTAL PROTECTION COMMISSION[567]

### Adopted and Filed

Pursuant to the authority of Iowa Code section 455B.133, the Environmental Protection Commission hereby amends Chapter 34, "Provisions for Air Quality Emissions Trading Programs," Iowa Administrative Code.

The purpose of the rule changes is to make administrative amendments to the state's rules for the Clean Air Interstate Rule (CAIR) and the Clean Air Mercury Rule (CAMR).

Notice of Intended Action was published in the Iowa Administrative Bulletin on August 1, 2007, as **ARC 6092B**. A public hearing was held on September 4, 2007. No comments were received at the public hearing and no comments were received prior to the close of the public comment period. The public comment period closed on September 5, 2007.

The Department did not make any changes to the adopted amendments from what was proposed in the published Notice.

The final rules for CAIR and CAMR were originally published in Chapter 34 of the Iowa Administrative Code on June 7, 2006. After the Department adopted the final rules and submitted the rules to the Environmental Protection Agency (EPA), Region VII, for approval into Iowa's State Implementation Plan (SIP), EPA identified an issue that required administrative amendments to Iowa's rules and to other states' rules.

The previously adopted definitions in Chapter 34 identified the Department as the permitting authority. The CAIR and CAMR programs are unique in that they allow for trading and holding of emissions allowances that may have been originally allocated by another "permitting authority," such as EPA or another state agency. To account for this, EPA requested that the Department modify the definitions of "permitting authority" contained in the Iowa Administrative Code for purposes of CAIR and CAMR allocations by adopting the definition in the federal regulations. EPA made a written request for the changes to the Department on February 16, 2007. EPA then followed this letter with an E–mail, dated April 10, 2007, requesting that the Department commit to a schedule allowing for final rule adoption by January 2008. This time line is necessary so that the adopted amendments become effective before any trading commences under the CAIR program, which could occur as early as January 2008.

Item 1 amends rule 567—34.201(455B) to specify that the definition of "permitting authority" shall mean the definition contained in 40 CFR 96.102 for purposes of its use in the definitions of "allocate or allocation" or "CAIR $NO_x$ allowance," also set forth in 40 CFR 96.102, and shall mean the Iowa Department of Natural Resources in all other references.

Item 2 amends rule 567—34.210(455B) to specify that the definition of "permitting authority" shall mean the definition contained in 40 CFR 96.202 for purposes of its use in the definitions of "allocate or allocation" or "CAIR $SO_2$ allowance," also set forth in 40 CFR 96.202, and shall mean the Iowa Department of Natural Resources in all other references.

Item 3 amends rule 567—34.221(455B) to specify that the definition of "permitting authority" shall mean the definition contained in 40 CFR 96.302 for purposes of its use in the definitions of "allocate or allocation" or "CAIR $NO_x$ ozone season allowance," also set forth in 40 CFR 96.302, and shall mean the Iowa Department of Natural Resources in all other references.

Item 4 amends rule 567—34.301(455B) to specify that the definition of "permitting authority" shall mean the definition contained in 40 CFR 60.4102 for purposes of its use in the definitions of "allocate or allocation" or "Hg allowance," also set forth in 40 CFR 60.4102, and shall mean the Iowa Department of Natural Resources in all other references.

These amendments are intended to implement Iowa Code section 455B.133.

These amendments will become effective on November 28, 2007.

EDITOR'S NOTE: Pursuant to recommendation of the Administrative Rules Review Committee published in the Iowa Administrative Bulletin, September 10, 1986, the text of these amendments [34.201, 34.210, 34.221, 34.301] is being omitted. These amendments are identical to those published under Notice as **ARC 6092B**, IAB 8/1/07.

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[Published 10/24/07]

[For replacement pages for IAC, see IAC Supplement 10/24/07.]

# ARC 6352B

## ENVIRONMENTAL PROTECTION COMMISSION[567]

### Adopted and Filed

Pursuant to the authority of Iowa Code sections 455B.105 and 455B.173, the Environmental Protection Commission hereby amends Chapter 61, "Water Quality Standards," Iowa Administrative Code.

Notice of Intended Action was published in the Iowa Administrative Bulletin on May 23, 2007, as **ARC 5898B**. Six public hearings were held, with notice of the hearings sent to various individuals, organizations, associations and interest groups and to statewide news network organizations. Comments were received from nine persons and organizations. A responsiveness summary addressing the comments can be obtained from the Department of Natural Resources.

The adopted amendment has been modified from that published in the Notice. The following modifications were made after all comments from the public hearings were considered.

1. Termination of rule making for 1.4 μg/l Arsenic (III) Class HH fish consumption criterion. The department is conducting additional research to determine an appropriate criterion due to ambiguity surrounding the 1.4 μg/l national criterion value.

2. Vinyl Chloride Class HH fish consumption criterion correction. The Notice originally proposed a criterion of 240 μg/l. This has been changed to a value of 24 μg/l to be consistent with the EPA's 304(a) national criterion for vinyl chloride.

3. Silver Class B(WW-1), B(WW-2), and B(WW-3) acute criterion correction. The Notice originally proposed a criterion of 4 μg/l. This has been changed to a value of 3.8 μg/l to be consistent with the EPA's 304(a) national criterion for silver.

With the inclusion of the modifications described above, the adopted amendment implements changes to the Commission's Water Quality Standards (WQS) as summarized below:

- Changes the current numerical criteria for 20 chemical parameters to protect aquatic life for the following use designations: Class B(WW-1), Class B(WW-2), and Class B(WW-3).
- Changes current numerical criteria for 42 chemical parameters to protect human health for Class HH – Human Health.
- Adds the chemical parameter aldrin to protect aquatic life and human health.

The 20 parameters to protect aquatic life for the Class B(WW-1), Class B(WW-2), and Class B(WW-3) designations include: arsenic, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, zinc, cyanide, chlordane, 4,4-DDT, endosulfan, heptachlor, heptachlor epoxide, polychlorinated biphenyls (PCBs), toxaphene, aluminum, and total residual chlorine.

The 41 parameters to protect human health for the Class HH designation include: antimony, benzene, benzo(a)Pyrene, bromoform, carbon tetrachloride, chlordane, chlorobenzene, chlorodibromomethane, cyanide, 4,4-DDT, paradichlorobenzene, 3,3-dichlorobenzidine, dichlorobromomethane, 1,2-dichloroethane, 1,1-dichloroethylene, 1,2-trans-dichloroethylene, 1,2-dichloropropane, bis(2-ethylhexyl) phthalate, dieldrin, 2,3,7,8-TCDD (dioxin), endosulfan, endrin, ethylbenzene, heptachlor, heptachlor epoxide, hexachlorobenzene, gamma-BHC (lindane), hexachlorocyclopentadiene, nickel, polynuclear aromatic hydrocarbons (PAHs), pentachlorophenol (PCP), polychlorinated biphenyls (PCBs), phenols, selenium, tetrachlorethylene, thallium, toluene, toxaphene, trichloroethylene (TCE), vinyl chloride, and zinc.

This amendment revises the current criteria for the chemical parameters listed above to reflect the latest scientific information and Environmental Protection Agency guidance.

Additional information on Iowa's water quality standards and the Department's rules can be found on the Department's Web site at http://www.iowadnr.com/water/standards/index.html.

This amendment may have an impact upon small businesses.

This amendment is intended to implement Iowa Code chapter 455B, division III, part 1.

This amendment shall become effective November 28, 2007.

The following amendment is adopted.

Amend subrule **61.3(3)**, Table 1, Criteria for Chemical Constituents, as follows:

**TABLE 1. Criteria for Chemical Constituents**

(all values as micrograms per liter *as total recoverable* unless noted otherwise)

Human health criteria for carcinogenic parameters noted below were based on the prevention of an incremental cancer risk of 1 in 100,000. For parameters not having a noted human health criterion, the U.S. Environmental Protection Agency has not developed final national human health guideline values. For noncarcinogenic parameters, the recommended EPA criterion was selected. For Class C waters, the EPA criteria for fish and water consumption were selected using the same considerations for carcinogenic and noncarcinogenic parameters as noted above. For Class C waters for which no EPA human health criteria were available, the EPA MCL value was selected.

| | | Use Designations | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Parameter | | B(CW1) | B(CW2) | B(WW-1) | B(WW-2) | B(WW-3) | B(LW) | C | HH |
| Alachlor | MCL | — | — | — | — | — | — | 2 | — |
| *Aldrin* | *Acute* | — | — | *3* | *3* | *3* | — | — | — |
| | *Human Health — Fish* | — | — | — | — | — | — | — | *.00050*[(e)] |
| | *Human Health + — F & W* | — | — | — | — | — | — | — | *.00049*[(f)] |
| Aluminum | Chronic | 87 | — | ~~388~~ *87* | ~~773~~ *87* | ~~773~~ *87* | 748 | — | — |
| | Acute | 1106 | — | ~~4539~~ *750* | ~~9035~~ *750* | ~~9035~~ *750* | 983 | — | — |
| Antimony | *Human Health — Fish* | — | — | — | — | — | — | — | *640*[(e)] |
| | Human Health + — F & W | — | — | — | — | — | — | — | ~~14~~ *5.6*[(f)] |
| Arsenic (III) | Chronic | 200 | — | ~~200~~ *150* | ~~1000~~ *150* | ~~1000~~ *150* | 200 | — | — |
| | Acute | 360 | — | ~~360~~ *340* | ~~1800~~ *340* | ~~1800~~ *340* | 360 | — | — |
| | Human Health — Fish | — | — | — | — | — | — | — | 50[(e)] *(g)* |
| | Human Health — F & W | — | — | — | — | — | — | — | .18[(f)] *(g)* |
| Asbestos | Human Health — F & W | — | — | — | — | — | — | — | 7[(a) (f)] |
| Atrazine | MCL | — | — | — | — | — | — | 3 | — |
| Barium | Human Health + — F & W | — | — | — | — | — | — | — | 1000[(f)] |

ENVIRONMENTAL PROTECTION COMMISSION[567](cont'd)

| Parameter | | Use Designations B(CW1) | B(CW2) | B(WW-1) | B(WW-2) | B(WW-3) | B(LW) | C | HH |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | Human Health — F & W | — | — | — | — | — | — | — | ~~12~~ *22*[f] |
| | Human Health — Fish | — | — | — | — | — | — | — | ~~712.8~~ *510*[e] |
| Benzo(a)Pyrene | Human Health — F & W | — | — | — | — | — | — | — | ~~.044~~ *.038*[f] |
| | *Human Health — Fish* | — | — | — | — | — | — | — | *.18*[e] |
| Beryllium | MCL | — | — | — | — | — | — | 4 | — |
| Bromoform | Human Health — F & W | — | — | — | — | — | — | — | 43[f] |
| | Human Health — Fish | — | — | — | — | — | — | — | ~~3600~~ *1400*[e] |
| Cadmium | Chronic | 1 | — | ~~15~~ *.27*[h] | ~~25~~ *.27*[h] | ~~25~~ *.27*[h] | 1 | — | — |
| | Acute | 4 | — | ~~75~~ *2.13*[h] | ~~100~~ *2.13*[h] | ~~100~~ *2.13*[h] | 4 | — | — |
| | Human Health + — Fish | — | — | — | — | — | — | — | 168[e] |
| | MCL | — | — | — | — | — | — | 5 | — |
| Carbofuran | MCL | — | — | — | — | — | — | 40 | — |
| Carbon Tetra-chloride | Human Health — F & W | — | — | — | — | — | — | — | ~~2.5~~ *2.3*[f] |
| | Human Health — Fish | — | — | — | — | — | — | — | ~~44.2~~ *16*[e] |
| Chlordane | Chronic | .004 | — | ~~.004~~ *.0043* | ~~.15~~ *.0043* | ~~.15~~ *.0043* | .004 | — | — |
| | Acute | 2.5 | — | ~~2.5~~ *2.4* | ~~2.5~~ *2.4* | ~~2.5~~ *2.4* | 2.5 | — | — |
| | Human Health — Fish | — | — | — | — | — | — | — | ~~.006~~ *.0081*[e] |
| | Human Health — F & W | — | — | — | — | — | — | — | ~~.021~~ *.008*[f] |
| Chloride | MCL | — | — | — | — | — | — | 250* | — |
| Chlorobenzene | Human Health + — Fish | — | — | — | — | — | — | — | ~~21~~ *1.6**[e] |
| | *Human Health + — F & W* | — | — | — | — | — | — | — | *130*[f] |
| | MCL | — | — | — | — | — | — | 100 | — |
| Chlorodibromo-methane | Human Health — F & W | — | — | — | — | — | — | — | ~~4.1~~ *4.0*[f] |
| | Human Health — Fish | — | — | — | — | — | — | — | ~~340~~ *130*[e] |
| Chloroform | Human Health — F & W | — | — | — | — | — | — | — | 57[f] |
| | Human Health — Fish | — | — | — | — | — | — | — | 4700[e] |
| Chloropyrifos | Chronic | .041 | — | .041 | .041 | .041 | .041 | — | — |
| | Acute | .083 | — | .083 | .083 | .083 | .083 | — | — |
| Chromium (VI) | Chronic | 40 | — | ~~40~~ *11* | ~~200~~ *11* | ~~200~~ *11* | 10 | — | — |
| | Acute | 60 | — | ~~60~~ *16* | ~~300~~ *16* | ~~300~~ *16* | 15 | — | — |
| | Human Health + — Fish | — | — | — | — | — | — | — | 3365[e] |
| | MCL | — | — | — | — | — | — | 100 | — |

ENVIRONMENTAL PROTECTION COMMISSION[567](cont'd)

| Parameter | | Use Designations B(CW1) | B(CW2) | B(WW-1) | B(WW-2) | B(WW-3) | B(LW) | C | HH |
|---|---|---|---|---|---|---|---|---|---|
| Copper | Chronic | 20 | — | ~~35~~ *9.3*[(i)] | ~~55~~ *9.3*[(i)] | ~~55~~ *9.3*[(i)] | 10 | — | — |
| | Acute | 30 | — | ~~60~~ *14*[(i)] | ~~90~~ *14*[(i)] | ~~90~~ *14*[(i)] | 20 | — | — |
| | Human Health + — Fish | — | — | — | — | — | — | — | 1000[(e)] |
| | Human Health + — F & W | — | — | — | — | — | — | — | 1300[(f)] |
| Cyanide | Chronic | 5 | — | ~~10~~ *5.2* | ~~10~~ *5.2* | ~~10~~ *5.2* | 10 | — | — |
| | Acute | 20 | — | ~~45~~ *22* | ~~45~~ *22* | ~~45~~ *22* | 45 | — | — |
| | Human Health + — F & W | — | — | — | — | — | — | — | ~~700~~ *140*[(f)] |
| | *Human Health — Fish* | — | — | — | — | — | — | — | *140*[*(e)*] |
| Dalapon | MCL | — | — | — | — | — | — | 200 | — |
| Dibromochloro-propane | MCL | — | — | — | — | — | — | .2 | — |
| 4,4-DDT ++ | Chronic | .001 | — | .001 | ~~.029~~ *.001* | ~~.029~~ *.001* | .001 | — | — |
| | Acute | .9 | — | ~~.8~~ *1.1* | ~~.95~~ *1.1* | ~~.95~~ *1.1* | .55 | — | — |
| | Human Health — Fish | — | — | — | — | — | — | — | ~~.0059~~ *.0022*[(e)] |
| | Human Health — F & W | — | — | — | — | — | — | — | ~~.0059~~ *.0022*[(f)] |
| o-Dichloro-benzene | MCL | — | — | — | — | — | — | 600 | — |
| para-Dichloro-benzene | Human Health + — F & W | — | — | — | — | — | — | — | ~~400~~ *63*[(f)] |
| | Human Health + — Fish | — | — | — | — | — | — | — | ~~2.6*~~ *190*[(e)] |
| 3,3-Dichloro-benzidine | Human Health — Fish | — | — | — | — | — | — | — | ~~.2~~ *.28*[(e)] |
| | Human Health — F & W | — | — | — | — | — | — | — | ~~.4~~ *.21*[(f)] |
| Dichlorobromo-methane | Human Health — F & W | — | — | — | — | — | — | — | ~~5.6~~ *5.5*[(f)] |
| | Human Health — Fish | — | — | — | — | — | — | — | ~~460~~ *170*[(e)] |
| 1,2-Dichloro-ethane | Human Health — F & W | — | — | — | — | — | — | — | 3.8[(f)] |
| | Human Health — Fish | — | — | — | — | — | — | — | ~~986~~ *370*[(e)] |
| 1,1-Dichloro-ethylene | Human Health — F & W | — | — | — | — | — | — | — | ~~.57~~ *330*[(f)] |
| | Human Health — Fish | — | — | — | — | — | — | — | ~~32~~ *7.1**[(e)] |
| cis-1,2-Dichloro-ethylene | MCL | — | — | — | — | — | — | 70 | — |
| ~~trans-1,2~~ *1,2-trans*-Dichloroethylene | Human Health + — F & W | — | — | — | — | — | — | — | ~~700~~ *10**[(f)] |
| | *Human Health — Fish* | — | — | — | — | — | — | — | *140*[*(e)*] |
| Dichloromethane | MCL | — | — | — | — | — | — | 5 | — |

ENVIRONMENTAL PROTECTION COMMISSION[567](cont'd)

| Parameter | | Use Designations B(CW1) | B(CW2) | B(WW-1) | B(WW-2) | B(WW-3) | B(LW) | C | HH |
|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dichloro-propane | Human Health — F & W | — | — | — | — | — | — | — | ~~5.2~~ *5.0*(f) |
| | *Human Health — Fish* | — | — | — | — | — | — | — | *150(e)* |
| Di(2-ethylhex-yl)adipate | MCL | — | — | — | — | — | — | 400 | — |
| ~~Di~~ *bis*(2-ethylhex-yl)phthalate | Human Health — F & W | — | — | — | — | — | — | — | ~~18~~ *12*(f) |
| | *Human Health — Fish* | — | — | — | — | — | — | — | *22(e)* |
| Dieldrin | Chronic | .056 | — | .056 | .056 | .056 | .056 | — | — |
| | Acute | .24 | — | .24 | .24 | .24 | .24 | — | — |
| | Human Health — Fish | — | — | — | — | — | — | — | ~~.0014~~ *.00054*(e) |
| | Human Health — F & W | — | — | — | — | — | — | — | ~~.0014~~ *.00052*(f) |
| Dinoseb | MCL | — | — | — | — | — | — | 7 | — |
| 2,3,7,8-TCDD (Dioxin) | Human Health — F & W | — | — | — | — | — | — | — | ~~1.3-7~~ *5.0-8*(f) |
| | Human Health — Fish | — | — | — | — | — | — | — | ~~.00014†~~ *5.1-8*(e) |
| Diquat | MCL | — | — | — | — | — | — | 20 | — |
| 2,4-D | Human Health + — F & W | — | — | — | — | — | — | — | 100(f) |
| Endosulfan(b) | Chronic | .056 | — | ~~.15~~ *.056* | ~~.15~~ *.056* | ~~.15~~ *.056* | .15 | — | — |
| | Acute | .11 | — | ~~.3~~ *.22* | ~~.3~~ *.22* | ~~.3~~ *.22* | .3 | — | — |
| | Human Health + — Fish | — | — | — | — | — | — | — | ~~240~~ *89*(e) |
| | Human Health + — F & W | — | — | — | — | — | — | — | ~~110~~ *62*(f) |
| Endothall | MCL | — | — | — | — | — | — | 100 | — |
| Endrin | Chronic | .05 | — | .036 | .036 | .036 | .036 | — | — |
| | Acute | .12 | — | .086 | .086 | .086 | .086 | — | — |
| | Human Health + — Fish | — | — | — | — | — | — | — | ~~.81~~ *.06*(e) |
| | Human Health + — F & W | — | — | — | — | — | — | — | ~~.76~~ *.059*(f) |
| Ethylbenzene | Human Health + — F & W | — | — | — | — | — | — | — | ~~3100~~ *530*(f) |
| | *Human Health — Fish* | — | — | — | — | — | — | — | *2100(e)* |
| Ethylene dibromide | MCL | — | — | — | — | — | — | .05 | — |
| Fluoride | MCL | — | — | — | — | — | — | 4000 | — |
| Glyphosate | MCL | — | — | — | — | — | — | 700 | — |

ENVIRONMENTAL PROTECTION COMMISSION[567](cont'd)

| Parameter | | Use Designations B(CW1) | B(CW2) | B(WW-1) | B(WW-2) | B(WW-3) | B(LW) | C | HH |
|---|---|---|---|---|---|---|---|---|---|
| Heptachlor | Chronic | .0038 | — | .0038 | ~~.01~~ *.0038* | ~~.01~~ *.0038* | .0038 | — | — |
| | Acute | .38 | — | ~~.38~~ *.52* | ~~.38~~ *.52* | ~~.38~~ *.52* | .38 | — | — |
| | Human Health — Fish | — | — | — | — | — | — | — | ~~.002~~ *.00079*[e] |
| | Human Health — F & W | — | — | — | — | — | — | — | ~~.0021~~ *.00079*[f] |
| Heptachlor epoxide | *Chronic* | *.0038* | — | *.0038* | *.0038* | *.0038* | *.0038* | — | — |
| | *Acute* | *.52* | — | *.52* | *.52* | *.52* | *.52* | — | — |
| | Human Health — F & W | — | — | — | — | — | — | — | ~~.001~~ *.00039*[f] |
| | *Human Health — Fish* | — | — | — | — | — | — | — | *.00039*[e] |
| Hexachloro-benzene | Human Health — F & W | — | — | — | — | — | — | — | ~~.0075~~ *.0028*[f] |
| | *Human Health — Fish* | — | — | — | — | — | — | — | *.0029*[e] |
| ~~y-Hexachloro-cyclohexane~~ *gamma-BHC* (Lindane) | Chronic | N/A | — | N/A | N/A | N/A | N/A | — | — |
| | Acute | .95 | — | .95 | .95 | .95 | .95 | — | — |
| | Human Health + — Fish | — | — | — | — | — | — | — | ~~.63~~ *1.8*[e] |
| | Human Health + — F & W | — | — | — | — | — | — | — | ~~.19~~ *.98*[f] |
| Hexachloro-cyclopentadiene | Human Health — F & W | — | — | — | — | — | — | — | ~~240~~ *40*[f] |
| | *Human Health — Fish* | — | — | — | — | — | — | — | *1100*[e] |
| Lead | Chronic | 3 | — | ~~30~~ *3.2*[j] | ~~80~~ *3.2*[j] | ~~80~~ *3.2*[j] | 3 | — | — |
| | Acute | 80 | — | ~~200~~ *81.7*[j] | ~~750~~ *81.7*[j] | ~~750~~ *81.7*[j] | 80 | — | — |
| | MCL | — | — | — | — | — | — | 50 | — |
| Mercury (II) | Chronic | 3.5 | — | ~~2.1~~ *.9* | ~~3.7~~ *.9* | ~~3.7~~ *.9* | .91 | — | — |
| | Acute | 6.5 | — | ~~4.0~~ *1.64* | ~~6.9~~ *1.64* | ~~6.9~~ *1.64* | 1.7 | — | — |
| | Human Health + — Fish | — | — | — | — | — | — | — | .15[e] |
| | Human Health + — F & W | — | — | — | — | — | — | — | .05[f] |
| Methoxychlor | Human Health + — F & W | — | — | — | — | — | — | — | 100[f] |
| Nickel | Chronic | 350 | — | ~~650~~ *52*[k] | ~~750~~ *52*[k] | ~~750~~ *52*[k] | 150 | — | — |
| | Acute | 3250 | — | ~~5800~~ *470*[k] | ~~7000~~ *470*[k] | ~~7000~~ *470*[k] | 1400 | — | — |
| | Human Health + — Fish | — | — | — | — | — | — | — | ~~4584~~ *4600*[e] |
| | Human Health + — F & W | — | — | — | — | — | — | — | 610[f] |
| Nitrate as N | MCL | — | — | — | — | — | — | 10* | — |
| Nitrate + Nitrite as N | MCL | — | — | — | — | — | — | 10* | — |
| Nitrite as N | MCL | — | — | — | — | — | — | 1* | — |

ENVIRONMENTAL PROTECTION COMMISSION[567](cont'd)

| Parameter | | Use Designations B(CW1) | B(CW2) | B(WW-1) | B(WW-2) | B(WW-3) | B(LW) | C | HH |
|---|---|---|---|---|---|---|---|---|---|
| Oxamyl (Vydate) | MCL | — | — | — | — | — | — | 200 | — |
| Parathion | Chronic | .013 | — | .013 | .013 | .013 | .013 | — | — |
| | Acute | .065 | — | .065 | .065 | .065 | .065 | — | — |
| Pentachlorophenol (PCP) | Chronic | (d) | — | (d) | (d) | (d) | (d) | — | — |
| | Acute | (d) | — | (d) | (d) | (d) | (d) | — | — |
| | Human Health — Fish | — | — | — | — | — | — | — | ~~82~~ *30*[e] |
| | Human Health — F & W | — | — | — | — | — | — | — | ~~.28~~ *2.7*[f] |
| Picloram | MCL | — | — | — | — | — | — | 500 | — |
| Polychlorinated Biphenyls (PCBs) | Chronic | .014 | — | .014 | ~~1~~ *.014* | ~~1~~ *.014* | .014 | — | — |
| | Acute | 2 | — | 2 | 2 | 2 | 2 | — | — |
| | Human Health — Fish | — | — | — | — | — | — | — | ~~.0004~~ *.00064*[e] |
| | Human Health — F & W | — | — | — | — | — | — | — | ~~.0017~~ *.00064*[f] |
| Polynuclear Aromatic Hydrocarbons (PAHs)** | Chronic | .03 | — | .03 | 3 | 3 | .03 | — | — |
| | Acute | 30 | — | 30 | 30 | 30 | 30 | — | — |
| | Human Health — Fish | — | — | — | — | — | — | — | ~~.3~~ *.18*[e] |
| | Human Health — F & W | — | — | — | — | — | — | — | ~~.044~~ *.038*[f] |
| Phenols | Chronic | 50 | — | 50 | 50 | 50 | 50 | — | — |
| | Acute | 1000 | — | 2500 | 2500 | 2500 | 1000 | — | — |
| | Human Health + — Fish | — | — | — | — | — | — | — | ~~300~~ *1700**[e] |
| | Human Health + — F & W | — | — | — | — | — | — | — | 21*[f] |
| Selenium ~~(VI)~~ | Chronic | 10 | — | ~~125~~ *5* | ~~125~~ *5* | ~~125~~ *5* | 70 | — | — |
| | Acute | 15 | — | ~~175~~ *19.3* | ~~175~~ *19.3* | ~~175~~ *19.3* | 100 | — | — |
| | Human Health + — F & W | — | — | — | — | — | — | — | 170[f] |
| | *Human Health + — Fish* | — | — | — | — | — | — | — | *4200[e]* |
| Silver | Chronic | N/A | — | N/A | N/A | N/A | N/A | — | — |
| | Acute | 30 | — | ~~100~~ *3.8* | ~~100~~ *3.8* | ~~100~~ *3.8* | 4 | — | — |
| | MCL | — | — | — | — | — | — | 50 | — |
| 2,4,5-TP (Silvex) | MCL | — | — | — | — | — | — | 10 | — |
| Simazine | MCL | — | — | — | — | — | — | 4 | — |
| Styrene | MCL | — | — | — | — | — | — | 100 | — |
| Tetrachloro-ethylene | Human Health — F & W | — | — | — | — | — | — | — | ~~8~~ *6.9*[f] |
| | *Human Health — Fish* | — | — | — | — | — | — | — | *33[e]* |
| Thallium | Human Health + — F & W | — | — | — | — | — | — | — | ~~1.7~~ *.24*[f] |
| | *Human Health + — Fish* | — | — | — | — | — | — | — | *.47[e]* |

ENVIRONMENTAL PROTECTION COMMISSION[567](cont'd)

| Parameter | | Use Designations B(CW1) | B(CW2) | B(WW-1) | B(WW-2) | B(WW-3) | B(LW) | C | HH |
|---|---|---|---|---|---|---|---|---|---|
| Toluene | Chronic | 50 | — | 50 | 150 | 150 | 50 | — | — |
| | Acute | 2500 | — | 2500 | 7500 | 7500 | 2500 | — | — |
| | Human Health + — Fish | — | — | — | — | — | — | — | ~~300~~ *15**(e) |
| | Human Health + — F & W | — | — | — | — | — | — | — | ~~6800~~ *1300*(f) |
| Total Residual Chlorine (TRC) | Chronic | 10 | — | ~~20~~ *11* | ~~25~~ *11* | ~~25~~ *11* | 10 | — | — |
| | Acute | 35 | — | ~~35~~ *19* | ~~40~~ *19* | ~~40~~ *19* | 20 | — | — |
| Toxaphene | Chronic | .037 | — | ~~.037~~ *.002* | ~~.037~~ *.002* | ~~.037~~ *.002* | .037 | — | — |
| | Acute | .73 | — | .73 | .73 | .73 | .73 | — | — |
| | Human Health — Fish | — | — | — | — | — | — | — | ~~.0075~~ *.0028*(e) |
| | Human Health — F & W | — | — | — | — | — | — | — | ~~.0073~~ *.0028*(f) |
| 1,2,4-Trichloro-benzene | MCL | — | — | — | — | — | — | 70 | — |
| 1,1,1-Trichloro-ethane | MCL | — | — | — | — | — | — | 200 | — |
| | Human Health + — Fish | — | — | — | — | — | — | — | 173*(e) |
| 1,1,2-Trichloro-ethane | Human Health — F & W | — | — | — | — | — | — | — | 6(f) |
| Trichloroethylene (TCE) | Chronic | 80 | — | 80 | 80 | 80 | 80 | — | — |
| | Acute | 4000 | — | 4000 | 4000 | 4000 | 4000 | — | — |
| | Human Health — Fish | — | — | — | — | — | — | — | ~~807~~ *300*(e) |
| | Human Health — F & W | — | — | — | — | — | — | — | ~~27~~ *25*(f) |
| Trihalomethanes (total)(c) | MCL | — | — | — | — | — | — | 80 | — |
| Vinyl Chloride | Human Health — F & W | — | — | — | — | — | — | — | ~~20~~ *.25*(f) |
| | Human Health — Fish | — | — | — | — | — | — | — | ~~5250~~ *24*(e) |
| Xylenes (total) | MCL | — | — | — | — | — | — | 10* | — |
| Zinc | Chronic | 200 | — | ~~450~~ *120*(l) | ~~2000~~ *120*(l) | ~~2000~~ *120*(l) | 100 | — | — |
| | Acute | 220 | — | ~~500~~ *120*(l) | ~~2200~~ *120*(l) | ~~2200~~ *120*(l) | 110 | — | — |
| | Human Health + — Fish | — | — | — | — | — | — | — | ~~5000~~ *26**(e) |
| | Human Health + — F & W | — | — | — | — | — | — | — | ~~9100~~ *7.4**(f) |

* units expressed as milligrams/liter

** to include the sum of known and suspected carcinogenic PAHs *(includes benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene)*

† expressed as nanograms/liter

\+ represents the noncarcinogenic human health parameters

++ The concentrations of 4,4-DDT or its metabolites; 4,4-DDE and 4,4-DDD, individually shall not exceed the human health criteria.

ENVIRONMENTAL PROTECTION COMMISSION[567](cont'd)

(a) units expressed as million fibers/liter (longer than 10 micrometers)

(b) includes alpha-endosulfan, beta-endosulfan, and endosulfan sulfate in combination or as individually measured

(c) The sum of the four trihalomethanes (bromoform [tribromomethane], chlorodibromomethane, chloroform [trichloromethane], and dichlorbromomethane) may not exceed the MCL.

(d) Class B numerical criteria ~~are~~ for pentachlorophenol *are* a function of pH using the equation: Criterion (µg/l) = $e^{[1.005(pH) - x]}$, where e = 2.71828 and x varies according to the following table:

| | B(CW1) | B(CW2) | B(WW-1) | B(WW-2) | B(WW-3) | B(LW) |
|---|---|---|---|---|---|---|
| Acute | 3.869 | — | 4.869 | 4.869 | 4.869 | 4.869 |
| Chronic | 4.134 | — | 5.134 | 5.134 | 5.134 | 5.134 |

(e) This Class HH criterion would be applicable to any Class B(LW), B(CW1), B(WW-1), B(WW-2), or B(WW-3) water body that is also designated Class HH.

(f) This Class HH criterion would be applicable to any Class C water body that is also designated Class HH.

*(g) inorganic form only*

*(h) Class B(WW-1), B(WW-2), and B(WW-3) criteria listed in main table are based on a hardness of 100 mg/l (as $CaCO_3$ (mg/l)). Numerical criteria (µg/l) for cadmium are a function of hardness (as $CaCO_3$ (mg/l)) using the equation for each use according to the following table:*

| | *B(WW-1)* | *B(WW-2)* | *B(WW-3)* |
|---|---|---|---|
| *Acute* | $e^{[1.0166Ln(Hardness) - 3.924]}$ | $e^{[1.0166Ln(Hardness) - 3.924]}$ | $e^{[1.0166Ln(Hardness) - 3.924]}$ |
| *Chronic* | $e^{[0.7409Ln(Hardness) - 4.719]}$ | $e^{[0.7409Ln(Hardness) - 4.719]}$ | $e^{[0.7409Ln(Hardness) - 4.719]}$ |

*(i) Class B(WW-1), B(WW-2), and B(WW-3) criteria listed in main table are based on a hardness of 100 mg/l (as $CaCO_3$ (mg/l)). Numerical criteria (µg/l) for copper are a function of hardness ($CaCO_3$ (mg/l)) using the equation for each use according to the following table:*

| | *B(WW-1)* | *B(WW-2)* | *B(WW-3)* |
|---|---|---|---|
| *Acute* | $e^{[0.9422Ln(Hardness) - 1.700]}$ | $e^{[0.9422Ln(Hardness) - 1.700]}$ | $e^{[0.9422Ln(Hardness) - 1.700]}$ |
| *Chronic* | $e^{[0.8545Ln(Hardness) - 1.702]}$ | $e^{[0.8545Ln(Hardness) - 1.702]}$ | $e^{[0.8545Ln(Hardness) - 1.702]}$ |

*(j) Class B(WW-1), B(WW-2), and B(WW-3) criteria listed in main table are based on a hardness of 100 mg/l (as $CaCO_3$ (mg/l)). Numerical criteria (µg/l) for lead are a function of hardness ($CaCO_3$ (mg/l)) using the equation for each use according to the following table:*

| | *B(WW-1)* | *B(WW-2)* | *B(WW-3)* |
|---|---|---|---|
| *Acute* | $e^{[1.2731Ln(Hardness) - 1.46]}$ | $e^{[1.2731Ln(Hardness) - 1.46]}$ | $e^{[1.2731Ln(Hardness) - 1.46]}$ |
| *Chronic* | $e^{[1.2731Ln(Hardness) - 4.705]}$ | $e^{[1.2731Ln(Hardness) - 4.705]}$ | $e^{[1.2731Ln(Hardness) - 4.705]}$ |

*(k) Class B(WW-1), B(WW-2), and B(WW-3) criteria listed in main table are based on a hardness of 100 mg/l (as $CaCO_3$ (mg/l)). Numerical criteria (µg/l) for nickel are a function of hardness ($CaCO_3$ (mg/l)) using the equation for each use according to the following table:*

| | *B(WW-1)* | *B(WW-2)* | *B(WW-3)* |
|---|---|---|---|
| *Acute* | $e^{[0.846Ln(Hardness) + 2.255]}$ | $e^{[0.846Ln(Hardness) + 2.255]}$ | $e^{[0.846Ln(Hardness) + 2.255]}$ |
| *Chronic* | $e^{[0.846Ln(Hardness) + 0.0584]}$ | $e^{[0.846Ln(Hardness) + 0.0584]}$ | $e^{[0.846Ln(Hardness) + 0.0584]}$ |

*(l) Class B(WW-1), B(WW-2), and B(WW-3) criteria listed in main table are based on a hardness of 100 mg/l (as $CaCO_3$ (mg/l)). Numerical criteria (µg/l) for zinc are a function of hardness ($CaCO_3$ (mg/l)) using the equation for each use according to the following table:*

| | *B(WW-1)* | *B(WW-2)* | *B(WW-3)* |
|---|---|---|---|
| *Acute* | $e^{[0.8473Ln(Hardness) + 0.884]}$ | $e^{[0.8473Ln(Hardness) + 0.884]}$ | $e^{[0.8473Ln(Hardness) + 0.884]}$ |
| *Chronic* | $e^{[0.8473Ln(Hardness) + 0.884]}$ | $e^{[0.8473Ln(Hardness) + 0.884]}$ | $e^{[0.8473Ln(Hardness) + 0.884]}$ |

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EDITOR'S NOTE: For replacement pages for IAC, see IAC Supplement 10/24/07.

# ARC 6349B

# ENVIRONMENTAL PROTECTION COMMISSION[567]

### Adopted and Filed

Pursuant to the authority of Iowa Code section 455B.474, the Environmental Protection Commission hereby amends Chapter 135, "Technical Standards and Corrective Action Requirements for Owners and Operators of Underground Storage Tanks," Iowa Administrative Code.

Notice of Intended Action was published as **ARC 6072B** in the August 1, 2007, issue of the Iowa Administrative Bulletin.

The Iowa Legislature passed legislation (2007 Iowa Acts, Senate File 499) granting rule-making authority to the Environmental Protection Commission in response to provisions of the federal Energy Policy Act of 2005. The Iowa legislation requires the Commission to adopt rules consistent with Environmental Protection Agency guidance (see http://www.epa.gov/OUST/index.htm) requiring that all new underground storage tank and piping installations and replacements be constructed to provide secondary containment (i.e., double-walled tanks and piping) if they are within 1,000 feet of a community water system or a potable drinking water well. Under-dispenser containment systems must also be